

WHAT IS CLAIMED IS:

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1. A probe for autonomously collecting data relating to the internal organs of a living organism, comprising:

5 at least one ultrasonic sensor which collects data; and
 at least one circuit adapted to communicate said data from said probe to an external device.

2. A probe for collecting data relating to the intestinal tract of a living organism, comprising at least one sensor adapted to autonomously detect the presence at least one
10 antigen within said intestinal tract.

3. A probe for autonomously collecting the intestinal tissue of a living organism, comprising:
 a sample mechanism for obtaining a sample of said tissue; and
 a controller for controlling at least a portion of the operation of said sample
15 mechanism.

4. A probe for autonomously collecting data relating to the internal organs of a living organism, comprising:
 at least one sensor which collects data; and
 a processor having at least one extension instruction specifically adapted to
20 process at least a portion of said data.

5. A probe for autonomously operating within the intestinal tract of a living organism, comprising:
 at least one sensor capable of collecting data;
 a data processor; and
25 a wireless transceiver;
 wherein said data processor and said wireless transceiver comprises a single semiconductive die.

6. An autonomous probe comprising a structural electronics housing adapted to store energy within at least a portion of said housing.

7. An autonomous probe comprising a structural electronics housing, at least a portion of said housing is electrically semiconductive, said semiconductive portion having a bandgap energy.

8. A probe configured to operate autonomously within the intestinal tract of a living organism, comprising at least one reservoir adapted to contain at least one substance therein, wherein said at least one substance is released by said probe into said intestinal tract upon assertion of a control event.

9. A probe adapted to operate autonomously within the intestinal tract of a living subject, said probe being configured to deliver carbon-based nanostructures to at least a portion of said intestinal tract.

10. A probe for autonomously operating within a living body, comprising:

a first probe housing element, and

a second probe housing element disposed proximate to said first housing element, wherein said second probe element is adapted to move substantially independently of said first probe housing element.

11. A probe adapted to operate autonomously within the intestinal tract of a living organism, comprising a semiconductor laser device adapted to irradiate tissue within said intestinal tract.

12. A probe adapted to operate autonomously within the intestinal tract of a living organism, said probe further being adapted to deliver a dose of ionizing radiation directly to at least a portion of said intestinal tract.

13. A probe adapted to operate autonomously within the intestinal tract of a living organism, wherein said probe is adapted to expand at least a portion of its diameter within said intestinal tract.

14. A probe adapted to operate autonomously within the intestinal tract of a living organism, wherein said probe includes a resonant cavity adapted to interact with incident electromagnetic radiation.